rejections, since these claims were not subject to an art rejection.

Various claims are amended.

New claims 23-26 are added.

In view of the above, it is submitted that claims 1-26 are submitted for consideration herein.

II.   OBJECTION TO THE DRAWINGS

Page 2 of the Office Action objects to the drawings because they "do not include the following reference sign(s) mentioned in the description: 10a, 10b, and 10c."

The Specification is amended to overcome the objection, and withdrawal of the objection is respectfully requested.

III.   REJECTION OF CLAIMS 5, 11, 16, AND 19-22 UNDER 35 U.S.C. 112(2)

Pages 7-8 of the Office Action reject claims 5 and 20-22 because the 'phrase, "a color of an adjacent area as to colors adjacent to one another on a chromaticity diagram of a plurality of colors perceived as mutually different colors in name" does not clearly state that colors adjacent to one another actually belong to mutually different categorical areas.'

The Applicant submits that the claim is not required to state that "colors adjacent to one another actually belong to mutually different categorical areas." Further, colors adjacent to one another may or may not belong to mutually different categorical areas, as the Examiner does not state his definition of 'categorical areas.' The feature of '. . . colors adjacent to one another on a chromaticity diagram of a plurality of colors perceived . . .' is definite in that it particularly points out the subject matter of the claim. While the Examiner infers that the claim should include, "colors adjacent to one another actually belong to mutually different categorical areas," this is an extra limitation which is not required to be stated in the claim itself. The Applicant submits that the metes and bounds of these claims are definite as written.

Page 8 of the Office Action rejects claims 11 and 16 because the 'phrase "a series of colors in adjacent areas for two sorts of colors adjacent to one another on a chromaticity

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diagram are displayed" is unclear. It is not clear that these two sorts of colors adjacent to one another actually belong to mutually different categorical areas.' If the Examiner maintains his objection, the Applicant respectfully requests the Examiner to specify why this limitation is needed in the claim to make it definite.

Again, the Applicant submits that the claim is not required to state that 'two sorts of colors adjacent to one another actually belong to mutually different categorical areas.' The Examiner does not define what he means by a 'categorical areas.' Further, two colors adjacent to one another may be in the same categorical area or a different one (again, 'categorical area' is not defined by the Examiner'). The Applicant submits that the metes and bounds of these claims are definite as written. If the Examiner maintains his objection, the Applicant respectfully requests the Examiner to specify why this limitation is needed in the claim to make it definite.

Page 8 of the Office Action rejections claim 19 because the 'phrase "persons of a predetermined ratio and up" is unclear.'

The Applicant has amended to claim 19 to overcome the rejection.

In view of the above, withdrawal of the rejections of claims 5, 11, 16, and 19-22 is respectfully requested.

IV.   REJECTION OF CLAIMS 1-4, 6-8, 12-15 AND 18 UNDER 35 U.S.C. § 102(b)

Pages 2-6 of the Office Action reject claims 1-4, 6-8, 12-15, and 18 under 35 U.S.C. § 102(b) as being anticipated by Mclaughlin et al., U.S. Patent No. 5,739,809 (Hereinafter "Mclaughlin").

Mclaughlin relates to a method which changes display characteristics via a user interface. A user is prompted to perform color matching to calibrate a display. The user drags a slider to adjust the display so one window closely matches another window.

Independent claim 1 (as amended) recites, "a color name input unit entering a name of a color displayed on said display unit in accordance with the color chart signal outputted from said signal output unit;"

Mclaughlin does not allow a user to enter a name of a color displayed on a display unit in accordance with a color chart signal. As one example of this feature (but of course the invention is not limited to this example) see Figure 8 of the present invention. Mclaughlin allows

a user to drag sliders to adjust such parameters as brightness and contrast (see Mclaughlin Figure 5). However, a user does not enter a name of a color, as claimed. Mclaughlin discloses adjusting RGB values (Mclaughlin, Figure 6), however this amounts to adjusting a displayed color, but not entering a name of a color being displayed. No such "entering a name" or "color chart signal" as claimed is disclosed in Mclaughlin.

Independent claim 1 (as amended) also recites, "a display characteristics identification unit determining display characteristics of said display unit in accordance with the color chart signal outputted from said signal output unit and the name of the color entered through said color name input unit."

As stated above, Mclaughlin does not disclose the "name of the color entered through said color name input unit." Thus, Mclaughlin cannot disclose determining display characteristics of a display unit in accordance with a color chart signal . . . and the name of the color entered. Mclaughlin loads display parameters which were pre-stored (Mclaughlin, column 7, lines 34-39). Mclaughlin also allows **adjustment** of these parameters. However, Mclaughlin does not **determine** display characteristics in accordance with a color chart signal . . . and the name of the color entered.

The rejection of claim 1 cites Mclaughlin, column 4, lines 58-67 and column 5, lines 25-30. Mclaughlin, column 4, lines 58-67, describes the hardware used to implement Mclaughlin, including a memory, storage device, keyboard, system bus, etc. However, none of the features discussed above are disclosed. Mclaughlin, column 5, lines 25-30, describes signals generated in response to user commands, which can be entered by a keyboard or mouse. However, none of the features discussed above are disclosed.

In order for a 35 U.S.C. § 102 rejection to be proper, the reference must teach each and every element of the rejected claim. Since Mclaughlin does not disclose the features discussed above, the Applicant submits that claim 1 is not anticipated by Mclaughlin.

Claims 2-13 are all ultimately dependent upon claim 1, which for the above reasons, is not anticipated by Mclaughlin. Claims 2-13 also recite additional features not taught or suggested by Mclaughlin, and it is submitted that claims 2-13 are independently patentable as well.

Dependent claim 2 recites, "wherein said display characteristics identification unit determines, as the display characteristics, a relationship between a signal representative of a

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white image and a color of an image displayed on said display unit in accordance with the signal." Page 3 of the rejection cites Mclaughlin, column 7, lines 1-5 and 12-15 as disclosing this feature. The cited portion of Mclaughlin describes the control panel shown in Figure 3 of Mclaughlin. This control panel is designed to allow a user to manually alter the RGB balance and the gamma characteristic. While the cited portion describes adjustment of characteristics, this is different than determining the display characteristics as a relationship between . . . , as claimed.

Dependent claim 6 recites, "A display characteristics recognition apparatus according to claim 1, wherein said color name input [means] unit enters a name of a color selected from among a plurality of colors perceived as mutually different colors in name." Page 4 of the rejection cites Mclaughlin, column 8, lines 61-67 as disclosing this feature. The cited portion of Mclaughlin discloses that a user can enter a desired contrast or brightness level. However, this is different from entering a name of a color selected from among a plurality of colors . . ., as claimed. No entering a name of a color from a plurality of colors perceived . . ., is disclosed in Mclaughlin.

Dependent claim 7 recites, "wherein said signal output unit outputs a plurality of color chart signals each representative of a monochrome figure to said display unit; said color name input unit enters a name of a color of each of a plurality of monochrome figures; and said display characteristics identification unit determines display characteristics of said display unit in accordance with the plurality of color chart signals outputted from said signal output unit and the plurality of names of the color entered through said color name input unit." Page 4 of the Office Action cites Mclaughlin, column 14, lines 5-50 as disclosing this feature. . The cited portion of Mclaughlin discloses that a device measures a sequence of different parameters, so that the display device can be conformed, thus 'adjustment data' is generated. However, a plurality of color chart signals, as claimed, is not disclosed. Further, the user in Mclaughlin does not enter a name of a color of each of a plurality of monochrome figures. Moreover, Mclaughlin does not determine display characteristics in accordance with the plurality of color chart signals . . . and the plurality of names of the color entered.

Dependent claim 8 recites, "wherein said signal output [means] unit outputs one of the plurality of color chart signals, and thereafter outputs, of the plurality of color chart signals, a color chart signal according to the name entered through said color name input [means] unit to said display unit." Page 4 of the Office Action cites Mclaughlin, column 14, lines 5-50. The

cited portion of <u>Mclaughlin</u> discloses that a device measures a sequence of different parameters, so that the display device can be conformed, thus 'adjustment data' is generated. However, a plurality of color chart signals is disclosed. Also, a color chart signal according to the name entered is not disclosed. In fact, as discussed above, there is no name entered in <u>Mclaughlin</u>.

Independent claims 14-16, 18, and 20-22, in view of the above remarks with respect to claim 1, are also not anticipated by <u>Mclaughlin</u>.

Therefore, in view of the above, withdrawal of the rejections is respectfully requested.

V.   REJECTION OF CLAIMS 9 AND 10 UNDER 35 U.S.C. § 103(a)

Pages 6-7 of the Office Action reject claims 9 and 10 under 35 U.S.C. § 103(a) as being unpatentable over <u>Mclaughlin</u> in view of Tanaka, U.S. Patent No. 5,943,036 (Hereinafter "<u>Tanaka</u>").

Claims 9 and 10 are dependent upon claim 1, which for the above reasons, should be allowed over the applied art.

In addition, the rejection does not indicate a rationale for combining <u>Mclaughin</u> with <u>Tanaka</u>. In order for a 35 U.S.C. § 103 rejection based on two references to be proper, the Examiner must provide a motivation for combining the two references. Please provide such motivation so that the Applicant can review and traverse if needed.

In view of the above, withdrawal of the rejections is respectfully requested.

VI.   NEW CLAIMS 23-26

New claims 23-26 are added which recite additional features not taught or suggested by the prior art, as discussed above. Therefore, it is submitted that claims 23-26 are in condition for allowance.

VII.   CONCLUSION

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

STAAS & HALSEY LLP

Date: 6-30-02   By: _____
                                     John H. Muskin
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

Please REPLACE the paragraph beginning at page 8, line 16 with the following:

--Here, the "monochrome figure" is not restricted to the figure of a primary color according to a color developing principle of a display unit. [Anyone] Any one is acceptable, as the "monochrome figure", which is a single color of figure on a visual basis.--

Please REPLACE the paragraph beginning at page 9, line 2, with the following:

--In the display characteristics recognition apparatus according to the present invention as mentioned above, it is acceptable that said display characteristics identification means determines, as the display characteristics, a relationship between a signal representative of a white image and a color of an image displayed on said display unit in accordance with the signal. In such a display characteristics recognition apparatus according to the present invention, it is preferable that said display unit is selectively set up to [anyone] any one of a plurality of display characteristics, and said display characteristics identification means determines display characteristics to which said display unit is now set up. --

Please REPLACE the paragraph beginning at page 23, line 10, with the following:

--The axis of abscissas and the axis of ordinates denote a so-called xy chromaticity value in which CIEXYZ value (X, Y, Z) is normalized with relational expressions of $x = X/(X + Y + Z)$, $y = Y/(X + Y + Z)$. In a case where lightness is not considered, one point on the chromaticity diagram denotes one color. A triangular domain 10 shown in the chromaticity diagram is an area of colors which can be reproduced by a display. Tops [10a, 10b and 10c] of the triangle denote colors displayed by a display in the event that RGB values entered to the display are (0, 0, 255), (0, 255, 0), (255, 0, 0), respectively). A wide region 20 covering the triangular domain 10 is an area of colors which can be perceived by a human.

Please REPLACE the paragraph beginning at page 38, line 12, with the following:

--As an input way of a color name, there is considered a method of entering an arbitrary

color name by a user through a keyboard. In this case, there is prepared a dictionary indicative of a correspondence between the respective colors represented by the various color names and the categorical colors of the eleven colors. Thus, when the user enters any color name, the entered color name is rounded into [anyone] any one of the categorical colors of the eleven colors, and it is understood that the one categorical color is selected. Further, there is considered an alternative method in which a series of color charts is displayed in such a manner that a series of colors across the adjacent two categorical areas is displayed, and a color chart corresponding to the boundary of the adjacent two categorical areas is selected.--

Please REPLACE the paragraph beginning at page 39, line 3, with the following:

--Fig. 9 shows five color charts 80, 81, 82, 83 and 84. Display colors of these five color charts 80, 81, 82, 83 and 84 are a series of colors from green to blue. Here, it is assumed that the more left side of the figure a color is nearer green, and the more right side of the figure a color is nearer blue. In the upper portion of Fig. 9, there is shown a character string 85 such as "Following colors change from green to blue. Which do you see green from?". In response to this question, a user clicks [anyone] any one selected among the five color charts 80, 81, 82, 83 and 84. This click is equivalent to the matter that as color names of the respective color charts at the left side from the clicked color chart, green is entered and as color names of color charts excepting the former color charts, blue is entered.--

IN THE CLAIMS:

Please AMEND the following claims:

1.   (ONCE AMENDED) A display characteristics recognition apparatus comprising:
    a signal output [means] unit connected to a display unit for displaying an image according to a signal entered, said display unit displaying the image with a color according to both the signal and display characteristics of said display unit, said signal output [means] unit outputting a color chart signal representative of a monochrome figure to said display unit;
    a color name input [means for] unit entering a name of a color displayed on said display unit in accordance with the color chart signal outputted from said signal output [means] unit; and

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a display characteristics identification [means for] unit determining display characteristics of said display unit in accordance with the color chart signal outputted from said signal output [means] unit and the name of the color entered through said color name input [means] unit.

2.   (ONCE AMENDED) A display characteristics recognition apparatus according to claim 1, wherein said display characteristics identification [means] unit determines, as the display characteristics, a relationship between a signal representative of a white image and a color of an image displayed on said display unit in accordance with the signal.

3.   (ONCE AMENDED) A display characteristics recognition apparatus according to claim 2, wherein said display unit is selectively set up to anyone of a plurality of display characteristics, and

said display characteristics identification [means] unit determines display characteristics to which said display unit is now set up.

4.   (ONCE AMENDED) A display characteristics recognition apparatus according to claim 1, wherein said display unit is a display in which an image is displayed through emission of light, and

said display characteristics identification [means] unit determines, as the display. characteristics, luminance of said display.

5.   (ONCE AMENDED) A display characteristics recognition apparatus according to claim 1, wherein said signal output [means] unit outputs such a color chart signal that a color of an adjacent area as to colors adjacent to one another on a chromaticity diagram of a plurality of colors perceived as mutually different colors in name is displayed in chromaticity according to display characteristics.

6.   (ONCE AMENDED) A display characteristics recognition apparatus according to claim 1, wherein said color name input [means] unit enters a name of a color selected from among a plurality of colors perceived as mutually different colors in name.

7.   (ONCE AMENDED) A display characteristics recognition apparatus according to

claim 1, wherein said signal output [means] unit outputs a plurality of color chart signals each representative of a monochrome figure to said display unit;

said color name input [means] unit enters a name of a color of each of a plurality of monochrome figures; and

said display characteristics identification [means] unit determines display characteristics of said display unit in accordance with the plurality of color chart signals outputted from said signal output [means] unit and the plurality of names of the color entered through said color name input [means] unit.

8.　(ONCE AMENDED) A display characteristics recognition apparatus according to claim 7, wherein said signal output [means] unit outputs one of the plurality of color chart signals, and thereafter outputs, of the plurality of color chart signals, a color chart signal according to the name entered through said color name input [means] unit to said display unit.

9.　(ONCE AMENDED) A display characteristics recognition apparatus according to claim 1, wherein said signal output [means] unit outputs the color chart signal to said display unit, and in addition outputs to said display unit a signal causing black to be displayed around the monochrome figure displayed on said display unit according to the color chart signal.

10.　(ONCE AMENDED) A display characteristics recognition apparatus according to claim 1, wherein said signal output [means] unit outputs the color chart signal to said display unit, and in addition outputs to said display unit a signal causing gray to be displayed around the monochrome figure displayed on said display unit according to the color chart signal and further causing black to be displayed around the gray.

11.　(ONCE AMENDED) A display characteristics recognition apparatus according to claim 1, wherein said signal output [means] unit outputs a series of color chart signals such that a series of colors in adjacent areas for two sorts of colors adjacent to one another on a chromaticity diagram are displayed, and

said color name input [means] unit selects a color corresponding to a boundary of the two sorts of colors from among the displayed series of colors.

12.　(ONCE AMENDED) A display characteristics recognition apparatus according to

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claim 1, wherein said display characteristics recognition apparatus further comprises a profile producing [means] unit for generating data representative, of display characteristics determined by said display characteristics identification [means] unit in a predetermined format to produce a profile representative of characteristics as to display of an image by said display unit including the data.

13.   (ONCE AMENDED) A display characteristics recognition apparatus according to claim 1, wherein said display characteristics recognition apparatus further comprises:

a profile storage [means for] unit storing various sorts of profiles each representative of characteristics as to display of an image by a display unit including data indicative of various display characteristics in a common format; and

a profile selection [means for] unit selecting one profile from among the various sorts of profiles stored in said profile storage [means] unit in accordance with the display characteristics determined by said display characteristics identification [means] unit.

14.   (ONCE AMENDED) A display characteristics recognition program storage medium storing a display characteristics recognition program comprising:

a signal output [means connected] unit outputting to a display unit for displaying an image according to a signal entered, said display unit displaying the image with a color according to both the signal and display characteristics of said display unit, said signal output [means] unit outputting a color chart signal representative of a monochrome figure to said display unit;

a color name input [means for] unit entering a name of a color displayed on said display unit in accordance with the color chart signal outputted from said signal output [means] unit; and

a display characteristics identification [means for] unit determining display characteristics of said display unit in accordance with the color chart signal outputted from said signal output [means] unit and the name of the color entered through said color name input [means] unit.

15.   (ONCE AMENDED) A computer system comprising:

a display unit for displaying an image according to a signal entered, said display unit displaying the image with a color according to both the signal and display characteristics of said

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display unit;

a main frame unit for outputting to said display unit a color chart signal representative of a monochrome figure and color name signals, which are representative of a plurality of color names, respectively; and

<u>an</u> input unit for entering a color name selected from among said plurality of color names to said main frame unit in accordance with an operation,

wherein said main frame unit determines display characteristics of said display unit in accordance with the color chart signal outputted toward said display unit and the color name entered through said input unit.

16.   (ONCE AMENDED) A computer system comprising:

a display unit for displaying an image according to a signal entered, said display unit displaying the image with a color according to both the signal and display characteristics of said display unit;

a main frame unit for outputting to said display unit a series of color chart signals such that a series of colors in adjacent areas for two sorts of colors adjacent to one another on a chromaticity diagram are displayed; and

<u>an</u> input unit for entering a color corresponding to a boundary of the two sorts of colors, which is selected from among the series of colors displayed on said display unit, to said main frame unit in accordance with an operation,

wherein said main frame unit determines display characteristics of said display unit in accordance with the color chart signal outputted toward said display unit and the.-color entered through said input unit.

17.   (AS UNAMENDED) A computer system according to claim 16 wherein said main frame unit outputs to said display unit the series of color chart signals, and in addition a message signal representative of a message inquiring as to from which color of the series of colors displayed on said display unit an operator visually identifies it as a color of a specified color name.

18.   (ONCE AMENDED) A computer system comprising:

a display unit for displaying an image according to a signal entered, said display unit displaying on a luminous display basis the image with a color according to both the signal and

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display characteristics of said display unit;

a main frame unit for outputting to said display unit color chart signals representative of a plurality of monochrome figures associated with mutually different luminance of said display unit, each of the plurality of monochrome figures being displayed with a color of a specified color name under an associated luminance; and

an input unit for selectively entering a monochrome figure displayed with a color of the specified color name of the plurality of monochrome figures displayed on said display unit, to said main frame unit in accordance with an operation,

wherein said main frame unit determines luminance of said display unit in accordance with the color chart signal outputted toward said display unit and the monochrome figure entered through said input unit.

19. (AS UNAMENDED) A computer system according to claim 18, wherein said main frame unit outputs color chart signals representative of a plurality of monochrome figures associated with mutually different luminance of said display unit, each of the plurality of monochrome figures being displayed with such a color that persons of a predetermined ratio and up recognize it as the color of the specified color name under an associated luminance.

20. (ONCE AMENDED) A display characteristics adjusting apparatus for adjusting display characteristics of a display unit for displaying an image according to a signal entered, said display unit displaying the image with a color according to both the signal and display characteristics of said display unit, said display characteristics adjusting apparatus comprising:

a signal output [means for] unit outputting to said display unit such a color chart signal that a color belonging to an adjacent area as to colors adjacent to one another on a chromaticity diagram of a plurality of colors perceived as mutually different colors in name is displayed on said display unit in accordance with display characteristics of said display unit.

21. (ONCE AMENDED) A display characteristics adjusting program storage medium storing a display characteristics adjusting program incorporated into a computer system, said display characteristics adjusting program causing said computer system to operate a display characteristics adjusting apparatus for adjusting display characteristics of a display unit for displaying an image according to a signal entered, said display unit displaying the image with a color according to both the signal and display characteristics of said display unit, said display

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characteristics adjusting program comprising:

a signal output [means for] unit outputting to said display unit such a color chart signal that a color belonging to an adjacent area as to colors adjacent to one another on a chromaticity diagram of a plurality of colors perceived as mutually different colors in name is displayed on said display unit in accordance with display characteristics of said display unit.

22. (ONCE AMENDED) A computer system comprising:

a display unit for displaying an image according to a signal entered, said display unit displaying the image with a color according to both the signal and display characteristics of said display unit;

an adjusting [means for] unit adjusting display characteristics of said display unit in accordance with an operation; and

a main frame unit for outputting to said display unit such a color chart signal that a color belonging to an adjacent area as to colors adjacent to one another on a chromaticity diagram of a plurality of colors perceived as mutually different colors in name is displayed on said display unit in accordance with display characteristics of said display unit.

Please ADD the following claims 23-26:

23. (NEW) A display characteristics recognition apparatus comprising:

means for displaying an image on a display unit with a color determined by both an input signal and display characteristics of the display unit, and displaying a color chart signal;

means for inputting a name of a color displayed in accordance with the color chart signal; and

means for determining display characteristics of said display unit in accordance with the color chart signal and the name of the color input.

24. (NEW) A method, comprising:

displaying an image on a display unit with a color determined by both an input signal and display characteristics of the display unit, and displaying a color chart signal;

inputting a name of a color displayed in accordance with the color chart signal; and

determining display characteristics of said display unit in accordance with the color chart signal and the name of the color input.

25.   (NEW) A computer readable storage, controlling a computer by,

displaying an image on a display unit with a color determined by both an input signal and display characteristics of the display unit, and displaying a color chart signal;

inputting a name of a color displayed in accordance with the color chart signal; and

determining display characteristics of said display unit in accordance with the color chart signal and the name of the color input.

26.   (NEW) An apparatus, comprising:

a display unit displaying an image on a display unit with a color determined by both an input signal and display characteristics of the display unit, and displaying a color chart signal;

an input unit inputting a name of a color displayed in accordance with the color chart signal; and

a determining unit determining display characteristics of said display unit in accordance with the color chart signal and the name of the color input.